

**Notice of Allowability**

Application No.

10/708,393

Applicant(s)

SYED ET AL.

Examiner

Angela M. Lie

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/6/2005.
2. ☒ The allowed claim(s) is/are 1, 2 and 4-19.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☒ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☒ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

Hoanganh Le  
Primary Examiner

## **DETAILED ACTION**

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Andrew Babcock on April 5th, 2006.

3. The application has been amended as follows:

In claim 1, line 1, after "a radome" insert --with the front/back ratio reduction characteristic--.

In claim 1, line 2, after "a radome" insert --in contact--.

In claim 15, line 1, after "a reflector antenna" insert --with the front/back ratio reduction characteristic--.

4. The Examiner's amendment has been made in order to place this application in condition for allowance.

### ***Drawings***

5. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because part of the drawings is hand written i.e. numbering of elements and figures. Applicant is advised to employ the services of a competent patent draftsman

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outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

***Allowable Subject Matter***

6. Claims 1,2 and 4-19 are allowed.

7. The following is an examiner's statement of reasons for allowance:

As to claim 1, the prior art of record fails to teach a radome with the front/back ratio reduction characteristic for a reflector antenna comprising: a radome with a conductive ring having an inward facing edge extending inward along the radome at least to an inner diameter of a distal end of a main reflector of the reflector antenna.

As to claims 2 and 4-9, those claims are allowed by the virtue of their dependency on claim 1.

As to claim 10, the prior art of record fails to teach a method for reducing front/back ratio of a reflector antenna comprising the steps of: coupling a conductive ring to a periphery of radome wherein the inward facing edge extending inward along the radome at least to an inner diameter of a distal end of a main reflector of the reflector antenna.

As to claims 11-14, those claims are allowed by the virtue of their dependency on claim 10.

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As to claim 15, the prior art of record fails to teach a reflector antenna with the front/back ratio reduction characteristic comprising a sub reflector and a conductive ring coupled to the radome wherein the conductive ring has an inward facing edge extending inward along the radome at least to an inner diameter of a distal end of the reflector proximate a periphery of the radome.

As to claims 16-19, those claims are allowed by the virtue of their dependency on claim 15.

8. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***The Prior Art***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US 4581615 discloses a double reflector antenna with integral radome reflector support
- US 20030038753 discloses a high gain, low side lobe dual reflector microwave antenna
- US 4755819 discloses a reflector antenna and method of fabrication
- US 6020859 discloses a reflector antenna with a self-supported feed

- US 5317328 discloses a horn reflector antenna with absorber lined conical feed.

***Inquiry***

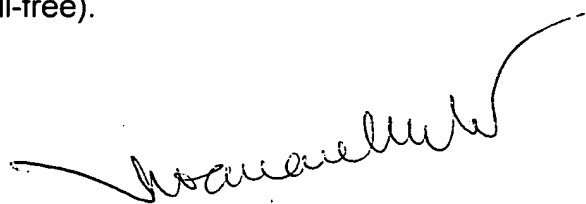
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela M. Lie whose telephone number is 571-272-8445. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**Angela M Lie**



**Hoanganh Le  
Primary Examiner**